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ABSTRACT

This study investigated the extent of relationships between the motivation-related independent variables of absences and academic self-concept and the dependent variable of academic achievement. A correlational research design was used to measure the extent of association between the study's variables. Participants were 34 11th graders (17 African Americans and 17 Caucasians; 19 males and 15 females) who were randomly assigned to 2 U.S. history classes that were taught by the same teacher at a public high school in Alabama. The teacher's grade book records provided data for measuring absences and academic achievement. Students' responses to the Academic Self-Description Questionnaire II instrument provided data for measuring academic self-concept. A Pearson r-test revealed a statistically significant ($p<0.05$) relationship between academic self-concept and academic achievement that had a strength of R square=27%. A multiple correlation test revealed a statistically significant relationship between academic self-concept, absences, and academic achievement that had a strength of R square=33%. There is a need for more research concerning motivation-related variables that may be related to academic achievement. (Contains 25 references.) (Author/SLD)

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The Effects of Absences and Academic Self-Concept on Academic Achievement in Two Eleventh-Grade U.S. History Classes

Presented to the MidSouth Educational Research Association's

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Abstract

This study investigated the relationships between absences, academic self-concept and the dependent variable of academic achievement. The participants were 34 eleventh graders who were randomly assigned to two US history classes that were taught by the same teacher at a public high school in Alabama. The participants consisted of 17 African Americans and 17 Caucasians; 19 were males and 15 were females. The teacher's grade book records provided data for measuring absences and academic achievement. Students' responses to the Academic Self-Description Questionnaire II instrument provided data for measuring academic self-concept. A Pearson r test revealed a statistically significant ($p<.05$) relationship between academic self-concept and academic achievement that had a strength of R Square = 27%. A multiple correlation test revealed a statistically significant relationship between academic self-concept, absences, and academic achievement that had a strength of R Square = 33%. More research needs to be conducted concerning motivation-related variables that may be related to academic achievement.

REVIEW OF THE LITERATURE

Introduction

This study investigated the extent of relationships between the motivation-related independent variables of absences and academic self-concept and the dependent variable of academic achievement. A correlational research design was used to measure the extent of association between the study's variables. The general theory was about the relationship between academic motivation and academic achievement. Academic self-concept, or the extent of students' pride and confidence in their academic work, is a motivation-related variable. Previous research studies have found that prior academic self-concept was positively related to subsequent academic achievement (Lyon, 1993; Payne, 1992). The number of students' absences is also a motivation-related variable. Previous research studies have found that the number of students' absences was an independent variable that was negatively related to academic achievement. Students with higher numbers of absences tended to have lower motivation to engage in academic work and students with lower numbers of absences tended to have higher motivation to engage in academic work (Byer, 1999; Stennett & Isaacs, 1980).

The general purpose of this research study was to provide further development for a theory about the relationship between academic motivation and academic achievement. A correlational research design was employed as a logistically feasible and economical approach for opening up a new area of experimental research into the relationship between academic motivation and academic achievement. A verifiable theory about the relationship between motivation and academic achievement could provide a theoretical foundation for interventions targeted on elevating students' motivation as a means of elevating students' academic achievement. The

specific purpose of this research study was to measure the extent of the relationships between absences and academic self-concept and the dependent variable of academic achievement.

Research Findings of Consistent and Positive Relationships between Academic Self-Concept and Academic Achievement

As developers of a theory of educational productivity, Uguroglu and Walberg (1979) found that motivation accounted for 11% of the variance in academic achievement and these researchers also found that academic self-concept was the strongest motivation-related variable as a predictor of academic achievement. After conducting a metaanalysis of research studies and finding an average correlation of r=.49 between academic self-concept and academic achievement, Pajares (1996) concluded that academic self-concept was a consistently strong predictor of academic achievement. In a study that involved 200 African-American twelfth graders, Payne (1992) found that academic self-concept had a correlation of r=.26 with Stanford Achievement Test verbal scores and he also found that academic self-concept had a correlation of r=.20 with Stanford Achievement Test mathematics scores. An investigation that involved 88 middle school students determined that a correlation of r=.57 existed between academic self-concept and academic achievement as measured by Stanford Achievement Test scores (Lyon, 1993). Lyon (1993) also found that the relationship between academic self-concept and academic achievement was stronger than the relationship between general self-concept and academic achievement.

As a researcher who has extensively investigated the relationships between academic self-concept and academic achievement, Herbert W. Marsh (1992) provided evidence that academic self-concept is a subject-specific construct that is most accurately and authentically measured on a subject-specific basis. For example, Marsh (1992) found that relationships between

subject-specific academic self-concept and subject-specific academic achievement were stronger than relationships between overall academic self-concept and overall academic achievement. In the process of measuring data on 507 high school boys, Marsh (1992) provided evidence that a correlation of r=.49 existed between history self-concept and history achievement. Marsh (1992) also determined that a correlation of r=.51 existed between geography self-concept and geography achievement. After investigating the relationship between subject-specific academic self-concept and subject-specific academic achievement in 14 subject areas, Marsh (1992) concluded that an average correlation of r=.57 existed between subject-specific academic self-concept and subject-specific academic achievement. Bloom (1976) contended that academic self-concept was the strongest of the noncognitive variables as a predictor of academic achievement. Concurring with Bloom, Lyon (1993) presented academic self-concept as a noncognitive characteristic that helps educators understand students' academic behavior.

Research Findings of Consistent and Negative Relationships Between the Number of Students' Absences and Academic Achievement

Stennett and Isaacs (1980) investigated the relationship between the number of students' absences and academic achievement among primary and secondary students in Ontario, Canada. These researchers found negative relationships between the number of students' absences and academic achievement among students at both the primary and secondary levels. Davis (1998) provided evidence of a negative relationship between the number of students' absences and students' scores on the Indiana Statewide Test for Educational Progress. School attendance and achievement data collected from the records of a random sample of 1,200 Chicago students revealed a negative relationship between the number of students' absences and students' grades

(Easton & Engelhard, 1981). However, Easton and Engelhard did not find a statistically significant relationship between the number of students' absences and students' standardized academic achievement test scores.

Richard M. Rozelle (1968) conducted research in which he investigated the relationship between absences and grades for students who attended Evanston Township High School in Evanston, Illinois between 1959 and 1962. Rozelle used the method of cross-lagged panel correlation in which he measured correlations between absences and grades at different times. Rozelle was attempting to compare the strength of the relationship between prior absences and subsequent grades to the strength of the relationship between prior grades and subsequent absences. Although not conclusive, Rozelle's research found correlations between prior absences and subsequent grades that were larger than correlations between prior grades and the number of subsequent absences.

Method

Participants

The participants in this study included 34 eleventh graders enrolled at a high school in central Alabama during the 1999-2000 school year. The participants were enrolled in two classes of a US history and geography after 1900 course that were taught by the same teacher. The participants were randomly assigned to each of the US history and geography after 1900 classes. Demographically, the participants consisted of 17 African-Americans and 17 Caucasians. Nineteen of the participants were males and fifteen of the participants were females.

Instrumentation and Procedure

The number of the participants' absences and the participants' grades were measured by

referring to the teacher's grade book records. The participants' academic self-concept scores were measured by using the Academic Self-Description Questionnaire II (ASDQ II). The ASDQ II instrument was designed to measure the academic self-concepts of middle school students and high school students in 16 subject areas. The ASDQ II instrument used in this study was made subject-specific for social studies. The ASDQ II instrument consists of separate six-item scales that measure students' academic self-concepts in 16 separate subject areas. The wording of each of the six-item scales for all 16 subject areas is parallel except for the identification of the subject area (Marsh, 1990). Internal consistency estimates of reliability for all 16 scales of the ASDQ II instrument have been determined. Coefficient alpha estimates for all 16 scales ranged between .885 and .949 (Marsh, 1990, 1992). Construct validity for the ASDQ II has been provided by exploratory factor analysis and by confirmatory factor analysis (Marsh, 1992). Exploratory factor analysis of the ASDQ II instrument's 16 separate scales has revealed that each of the scales measured the constructs that they were designed to measure. Factor loadings for the ASDQ II instrument's measured variables were statistically significant ($p<.05$) and ranged from .668 to .967 (Marsh, 1990). Specifically, academic achievement was measured according to the teacher's grade book records of the 34 eleventh graders' numerical grade averages for the third nine-week session of the 1999-2000 school year. The participants completed the ASDQ II instrument during the third nine weeks of the 1999-2000 school year.

Hypotheses

The first hypothesis predicted a statistically significant ($p<.05$) relationship between the independent variable of academic self-concept in social studies and the dependent variable of academic achievement in social studies. The second hypothesis predicted a statistically

significant relationship between the independent variables of students' academic self-concept in social studies and the number of students' absences and the dependent variable of academic achievement in social studies.

Results of Testing the Hypotheses

Using the Pearson r statistical method to quantitatively test hypothesis one resulted in finding a statistically significant ($p<.05$) relationship $r=.50$ between the independent variable of academic self-concept in secondary social studies classes and the dependent variable of academic achievement in secondary social studies classes. The variance in the dependent variable that was explained by the findings of hypothesis one was R2 = 27%. Therefore, hypothesis one was accepted and evidence of a consistent relationship (of approximately $r=.55$) between subject-specific academic self-concept and subject-specific academic achievement was increased.

Using the multiple correlation statistical method to quantitatively test hypothesis two resulted in finding a statistically significant relationship (R Square = 33%) between the independent variables of academic self-concept and the number of students' absences and the dependent variable of academic achievement. Adding absences as a second independent variable in addition to academic self-concept explained an additional six percent of the variance in academic achievement. Absences and academic achievement were negatively related. Academic self-concept explained approximately one fourth of the variance in academic achievement. Findings have also indicated that the motivation-related variables of academic self-concept and absences have explained one third of the variance in academic achievement. Table 1 provides a description that displays these correlational results. The mean number of absences was 2.25 and the standard deviation was 1.86. The mean academic self-concept score was 24.85 and the standard

Table 1. The relationships between academic self-concept, absences, and academic achievement.

Independent Variables	Dependent Variable	
social studies academic self-concept	social studies achievement	r = .50 **
		R2 = 27%
		p = .008
social studies academic self-concept and the number of students' absences	social studies achievement	R2 = 33% *
		p = .041

** statistically significant at ($p < .01$)

* statistically significant at ($p < .05$)

deviation was 8.08. The average grade was 76.50 and the standard deviation was 11.16.

Discussion

This study's finding of a positive relationship between academic self-concept and academic achievement closely parallels findings from other research studies. This study's finding of a negative relationship between the number of students' absences and academic achievement also parallels findings from other research studies. For scientific evidence to be established, at least one comparison should be made (Campbell & Stanley, 1963). Comparing the correlation r=.50 between academic self-concept and academic achievement that was found in this study with correlations found between academic self-concept and academic achievement in other research studies provides evidence that there is a consistent positive relationship between academic self-concept and academic achievement that has strengths in the range between r=.20 to r=.57. Comparing the negative relationship between the number of students' absences and academic achievement found in this study to the negative relationships found between absences and academic achievement in other research studies provides evidence of a consistent negative relationship between absences and academic achievement. Although correlational designs are weak in providing evidence that the independent variables actually had a causal influence on the dependent variable (Aron & Aron, 1999), these designs are strong for theory building and for increasing understanding of variables that are related to academic achievement. As convenient, logistically feasible, and easily replicable research designs, the correlational research designs can provide a knowledge base on which to justify experimental research. For instance, research findings of consistent positive relationships between academic self-concept and academic

achievement have provided evidence on which to base interventions designed to elevate students' academic self-concepts. If and when interventions designed to increase students' academic self-concept are successful, statistical tests could be run to determine whether or not elevated academic self-concept has a positive influence on academic achievement. Also, research findings of consistent negative relationships between the number of students' absences and academic achievement have provided evidence on which to base interventions designed to reduce the number of students' absences. If and when interventions designed to decrease the number of students' absences are successful, statistical tests could be run to determine whether or not reducing the number of students' absences has a positive influence on academic achievement.

Approaches for Elevating Students' Academic Self-Concept

Calsyn and Kenny (1977) contrasted the skill development model of academic self-concept to the self-enhancement model of academic self-concept. Skill development theorists contend that academic self-concept is primarily a consequence of prior academic achievement. Skill development theorists recommend structuring the curriculum and using personalized instructional methods as a means of elevating students' academic achievement. Skill development theorists argue that realistically elevating students' academic achievement is the most efficacious approach for elevating students' academic self-concept. In contrast, self-enhancement theorists contend that prior academic self-concept is an influencing agent that positively influences students' subsequent academic achievement. Self-enhancement theorists contend that substantial time should be spent on trying to elevate students' academic self-concepts. Providing support for the skill development model of academic self-concept, Calsyn and Kenny (1977) found that the influence of prior academic achievement on subsequent academic self-concept was stronger than

the influence of prior academic self-concept on subsequent academic achievement. These researchers' finding that academic achievement was causally predominant over academic self-concept provides evidence that interventions attempting to elevate students' academic self-concept should begin by trying to realistically enhance students' academic achievement.

Advancing recommendations concurrent with the skill development model of academic self-concept, Purkey (1970) urged teachers to combine challenging students' engagement in rigorous academic work with assuring students that they have the capabilities to achieve academically. He advised teachers to project high academic expectations for their students in the process of establishing an environmental climate that facilitates students' cognitive growth. He also recommended that teachers give extra encouragement and support for slower students while projecting honest expectations that all students will achieve academic success.

Canfield and Wells (1994) recommended that teachers encourage students to focus on the positive aspects of themselves by asking them to publicly share their academic accomplishments with the class. Teachers should look for successes that need to be pointed out for children with very low academic self-concepts. These authors pointed to the benefits of getting students to keep reflective journals in which they keep records of their academic growth. Accepting both the skill development and self-enhancement models of academic self-concept, Canfield and Wells (1994) contended that a positive academic self-concept is essential for successful academic functioning and vice versa. There is a reciprocal relationship between academic self-concept and academic achievement. Each supports and enhances the other (Canfield & Wells, 1994).

Rosenberg (1965) found that class differences in academic self-concept are greater for boys than for girls. His research indicated that 55% of upper class boys had high academic self-

concepts and he also found that only 36% of lower class boys had high academic self-concepts. Forty-seven percent of upper class girls had high academic self-concepts and 41% of lower class girls had high academic self-concepts. Thirty-nine percent of lower class boys had low academic self-concepts and 32% of lower class girls had low academic self-concepts. Rosenberg's findings indicated that the lower the social class the more likely the boy is to have a low academic self-concept. Rosenberg (1965) also discovered that 71% of high class students think that they are good students in school but only 39% of low class students think that they are good students in school. Forty-six percent of high-class students felt well-respected and looked up to by others but only 16 percent of low-class students felt well-respected and looked up to by others. Rosenberg's findings provide evidence that it is especially important for teachers to attempt to elevate the academic achievement and the academic self-concept of socioeconomically disadvantaged students. Socioeconomically disadvantaged students are practically certain to be invidiously excluded from the highest echelons of their schools' popularity structures and these students are likely to be excluded from opportunities to gain recognition through their schools' extracurricular activities. There is little if anything that teachers can do about this school wide discrimination against socioeconomically disadvantaged students. However, classroom teachers can insure that socioeconomically deprived students are presented with rigorous academic challenges that are coupled with encouragement and support that will facilitate exemplary academic accomplishments.

As an early self-enhancement theorist, Brookover (1965) recommended interventions designed to increase students' academic self-concept as a precondition for increasing their academic achievement. He tested the efficacy of three approaches for increasing students'

academic self-concepts. The first approach was to enhance the academic expectations and evaluations that parents hold of their children's academic ability. The second approach was get an outside "expert" to communicate directly with students and to enhance information about their academic ability. The third approach was to create a new "significant other" in the form of a counselor whose high academic expectations and evaluations might be internalized by students. Brookover tested the efficacy of these three approaches by conducting a "parent group experiment", an "expert group experiment", and a "counselor group experiment". He found that only the parent group experiment resulted in a significant positive improvement in junior high school students' academic self-concept. Brookover's research also indicated that after having worked with parents for nine months the children in the parent group had improved their perceptions of their selves as academic achievers and the children significantly improved their grades in school. Brookover concluded that the low achieving students' self-concept of academic ability can be improved by working with parents. Brookover (1965) recommended combining attempts to identify significant variables in the learning experiences of students with attempts manipulate the significant variables in such a way as to improve the performance of low-achieving students.

Using Bandura's self-efficacy theory as theoretical underpinning, Colvin and Schlosser (1998) contended that students' confidence to perform a given academic task is likely to influence their academic performance. Colvin and Schlosser's theory that young adolescents' beliefs about competence are strongly influenced by teachers' messages led these authors to make the following recommendations. Teachers need to create confident classrooms by emphasizing students' strengths and by addressing students' weaknesses in ways that encourage risk taking

and perseverance. Teachers must project confidence that their students can be capable and confident learners. Instead of assuming that low performing students' academic performances indicate a lack of ability, teachers should measure the adequacy of students' prior knowledge for specific tasks. Teachers need to project high academic expectations for their students and teachers also need to challenge students with academic work that requires a substantial investment of effort. Teachers can boost low performing students' confidence and academic performance by breaking down complex academic tasks into clear step-by-step procedures for efficaciously accomplishing academic success (Colvin & Scholsser, 1998).

Shindler (1998) emphasized the importance of classroom climate as an influence on students' academic self-concept. Classroom climate, which is heavily influenced by teachers, can negatively create an atmosphere of hostility and fear but classroom climate can also positively create an atmosphere of comfort and support. Shindler (1998) advanced the following recommendations for creating a classroom climate that encourages students toward higher levels of academic confidence and academic achievement. Use cooperative structures that necessitate interdependence among students. Use assigned roles and rotation of grouping that gets students to work with each member of the class. Do not accept negative self-talk or any form of "put downs" during class. In order to realistically promote students' academic self-concept, Shindler (1998) recommended that teachers: (1) use a clear system for providing students with feedback concerning their academic work, (2) assess students' academic work with a clear criterion-referenced system that gives students purposeful and clearly articulated goals to strive towards, and (3) have high expectations for all students and point out occasions in which students achieve academically.

In the process of polemicizing against self-enhancement approaches for elevating students' academic self-concept, Moeller (1993) provided evidence that attempts to raise academic self-concept in the absence of improved academic achievement were unsuccessful. Moeller found that attempts to promote academic achievement resulted in higher academic self-concept gains than programs that were explicitly designed to promote academic self-concept. He recommended that teachers and parents encourage children to develop the motivation to persevere in their striving for academic excellence.

The skill development model provides a sound basis for realistically raising students' academic self-concept by thoughtfully and tactfully raising their academic achievement. This section has cited published authors who have developed research-based recommendations designed to promote students' academic achievement and students' academic self-concept. The following section will examine approaches for reducing the number of students' absences as a means of increasing students' academic achievement.

Approaches for Reducing the Number of Students' Absences

Fotinas (1975) described an experimental school attendance policy that was used by a high school in California. Not over 12 absences were allowed per semester before the student failed the class. After a students' fourth, eighth, and twelfth absence their parents were notified about the absences. Absences were reduced by 50% during the first year of the new attendance policy. Brown (1990) provided evidence that counseling students who were frequently absent about the importance of school attendance helped to decrease their number of absences.

A school wide attendance incentive system that was coupled with individualized absence reduction plans for students with excessive absences resulted in a reduction of absences at an

elementary school in the southeastern United States during the 1992-93 school year (Ford & Sutphen, 1996). The school wide attendance incentive program was initiated by placing posters around the school listing the names of students who had perfect or good attendance during the previous school year. After each nine-week grading period the posters were replaced with new posters that listed the names of the students who had perfect attendance or good attendance during that grading period. Students with perfect attendance were awarded a certificate and the principal read their names over the public address system. Students with good attendance were rewarded with acknowledgments. The individualized absence reduction program for students with excessive absences involved giving each student with excessive absences an attendance calendar. A sticker was attached to the attendance calendar for each day that the child attended school. Prizes consisting of candy, fancy pens or pencils, markers, and toys were given for regular attendance. The individualized absence reduction program for students with excessive absences was coupled with home-based absence reduction interventions which involved telephoning parents to encourage them to become involved in their children's schooling. Parents were encouraged to establish morning and evening school preparation routines and parents were also encouraged to look for alternative ways to transport their children to school when unreliable transportation had caused their children to be absent. At this elementary school, school-wide attendance increased from 94.8% in 1992-93 to 95.4% in 1993-94. Absence rates for the students who had previously had excessive absences dropped from 7.5 in the first nine weeks to 5.1 in the second nine weeks (Ford & Sutphen, 1996).

Conclusion

This research has increased the evidence about the consistent positive relationship between the motivation-related variable of academic self-concept and academic achievement in secondary social studies classes. This research has also increased the evidence about the consistent negative relationship between the number of students' absences and academic achievement. Although correlation does not prove causation, there are good reasons to think that elevating students' academic self-concept would promote increases in students' academic achievement and there are also good reasons to think that reducing the number of students' absences would promote increases in students' academic achievement. Further correlational research needs to be undertaken concerning the relationships between the motivation-related variables of absences and academic self-concept and the dependent variable of academic achievement. More comprehensive multiple correlation models need to investigate the effects of other motivation-related variables that may be related to academic achievement. Experimental research needs to investigate the extent to which classroom teachers and parents can manipulate motivation-related variables that are related to academic achievement. Experimental research also needs to be undertaken to measure the extent to which reductions in absences and increases in academic self-concept may promote gains in academic achievement.

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